

Work Order ID 128222

Tuesday, January 13, 2015 1:28:25 PM

128222

Page 1

Item ID: D3319-3 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Full-Length Wearplate
Start Date: 1/13/2015 Start Qty: 12.00 ***12*** Cust Item ID:
Required Date: 1/20/2015 Req'd Qty: 12.00 ***12*** Customer:
Reference:

Approvals: Process Plan: MLS Date: 15-01-13 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3319	C

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg. D3319

Dwg Rev: C

1010 .050

Prog Rev: C

2-Deburr if necessary

10 Ø Jm 15-1-14

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

10 Ø Jm 15-1-14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty ,	Reject Qty	Reject Number	Insp. Stamp
160 *160* Large Fab	Weld per dwg A/R Hardcoat steel Batch: <u>M130661</u> Large Fab	0.00				<u>x10</u>		<u>15-01-26</u>	<u>MAL</u>
	Memo	0.00							
Large Fab	Weld hard surface using D3319-3T2 per QSI 004 and Dwg D3319 Batch A/R 7560 Hardcoat Rod <u>M130661</u>								
170 *170* QC	QC10- Inspect visual per QSI004- ground welds	0.00				<u>10</u>		<u>15-1-26</u>	DAS 50 9-89
Quality Control	Memo	0.00							
180 *180* QC	QC5- Inspect part completeness to step on W/O	0.00				<u>10</u>		<u>15-1-26</u>	DAS 50 9-89
Quality Control	Memo	0.00							

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FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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Item ID: D3319-3 Accept ***N900040100*** Setup Start ***NS1***
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 Start Date: 1/13/2015 Start Qty: 12.00 ***12*** Cust Item ID:
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* Powdercoat Powder Coating	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3 <i>m 128564.</i> Memo START TIME: <i>10:40.</i> OVEN TEMPERATURE: <i>320°</i> FINISH TIME: <i>11:10.</i>	0.00 0.00				<i>10</i>	<i>0</i>	<i>15-1-27.</i>	DAS 34 9-89
200 *200* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				<i>(10)</i>			DAS 38 9-89
210 *210* Packaging Packaging	Packaging Memo Identify on inside surface using a permanent fine point marker with the following:TCCA-PDA, Dart Aerospace Ltd.P/N: D3319-3, B/N: BXXXXXFor Product Eligibility see PDA05-18 and Stock Location: <i>st 603</i>	0.00 0.00				<i>10</i>		<i>DAS 27 9-89</i>	FEB 12 2015

JAN 28 2015

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FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	QC21 - Final Inspection - Work Order Release	0.00							
220									
QC	Memo	0.00							
Quality Control									

MLJ 1502-13

DS-2-12

DQA: _____ Date: _____



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Picklist Print

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Page 1

Work Order ID: 128222

128222

Parent Item: D3319-3

D3319-3

Parent Item Name: Full-Length Wearplate

Start Date: 1/13/2015

Required Date: 1/20/2015

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP: A05.05.12New issueKJ/JLM
IPP Rev:B Now on Waterjet 06-10-03 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M1010S18GA		Purchased	No			100	sf	59.0000	3.2524	42			

M1010S18GA

1010/1025 SHEET .048

(30)

Jm 15-1-14

Location

Loc Qty

Loc Code

MAT019

58.999952

124428

11

m130454

48

130454

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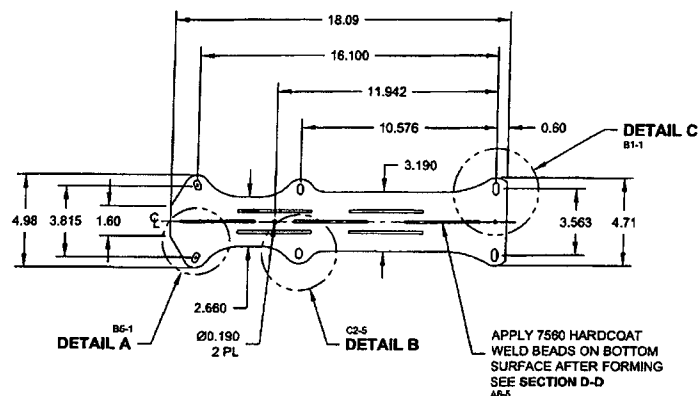
DART AEROSPACE LTD		Work Order:	128222
Description: Wearplate		Part Number:	D3319-3
Inspection Dwg: D3319 Rev: C		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

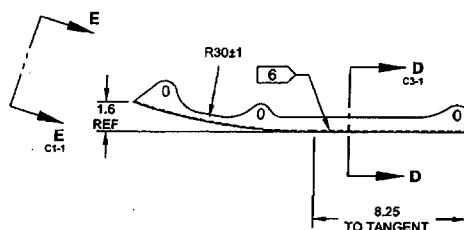
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.190	+0.005/-0.001	0.191	-		V	Jkm01
Ø0.500	+0.006/-0.001	0.502	-		V	
0.316	+/-0.010	0.319	-		V	
0.607	+/-0.010	0.609	-		V	
2.94	+/-0.030	2.945	-		V	
2.69	+/-0.030	2.697	-		V	
3.527	+/-0.010	3.529	-		V	
4.52	+/-0.030	4.52	-		V	
5.063	+/-0.010	5.063	-		V	
6.16	+/-0.030	6.16	-		V	
0.60	+/-0.030	0.604	-		V	
8.690	+/-0.010	8.690	-		V	
30.790	+/-0.010	30.790	-		T	Jkm07
52.88	+/-0.030	52.88	-		T	
62.770	+/-0.010	62.770	-		T	
74.420	+/-0.010	74.420	-		T	
75.52	+/-0.030	75.52	-		T	
0.050	+/-0.010	0.048	-		V	

Measured by:	Jm.	Audited by:	38 9-86	Preliminary Approval:	
Date:	15-1-14	Date:	JAN 15 2015	Date:	

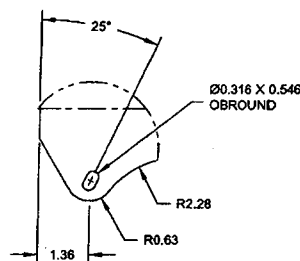
Rev	Date	Change	Revised by	Approved
A	07.07.18	New Issue	KJ/JLM	
B	12.05.15	Dimensions updated per Dwg Rev C	KJ	



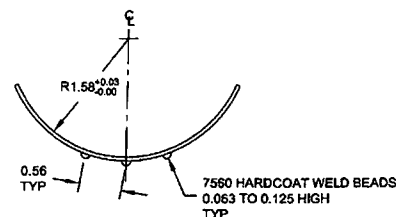
D3319-1F FLAT PATTERN



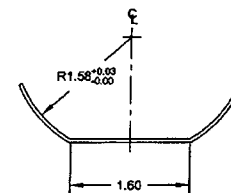
D3319-1 BENDING DETAIL
MAKE FROM D3319-1F



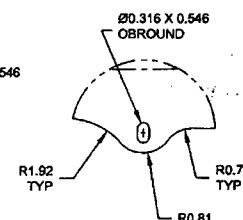
DETAIL A
SCALE 4X



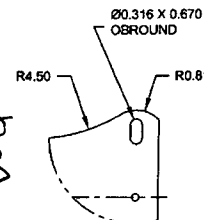
SECTION D-D
SCALE 4X



SECTION E-E
SCALE 4X



DETAIL B
SCALE 4X



DETAIL C
SCALE 4X

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D3319-1 WEARPLATE

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK) REF. DART SPEC. M1010-S18GA
- 2) FINISH: POWDER COAT GREY SANDEX (REF.4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY ON INSIDE SURFACE WITH "TCCA-PDA, DART AEROSPACE LTD., P/N D3319-1 B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-18" PER DART QSI 044 6.1 (FINE POINT PAINT MARKER)
- 7) WEIGHT: 0.90 lbs APPROX
- 8) SYMMETRY: ABOUT CENTERLINE

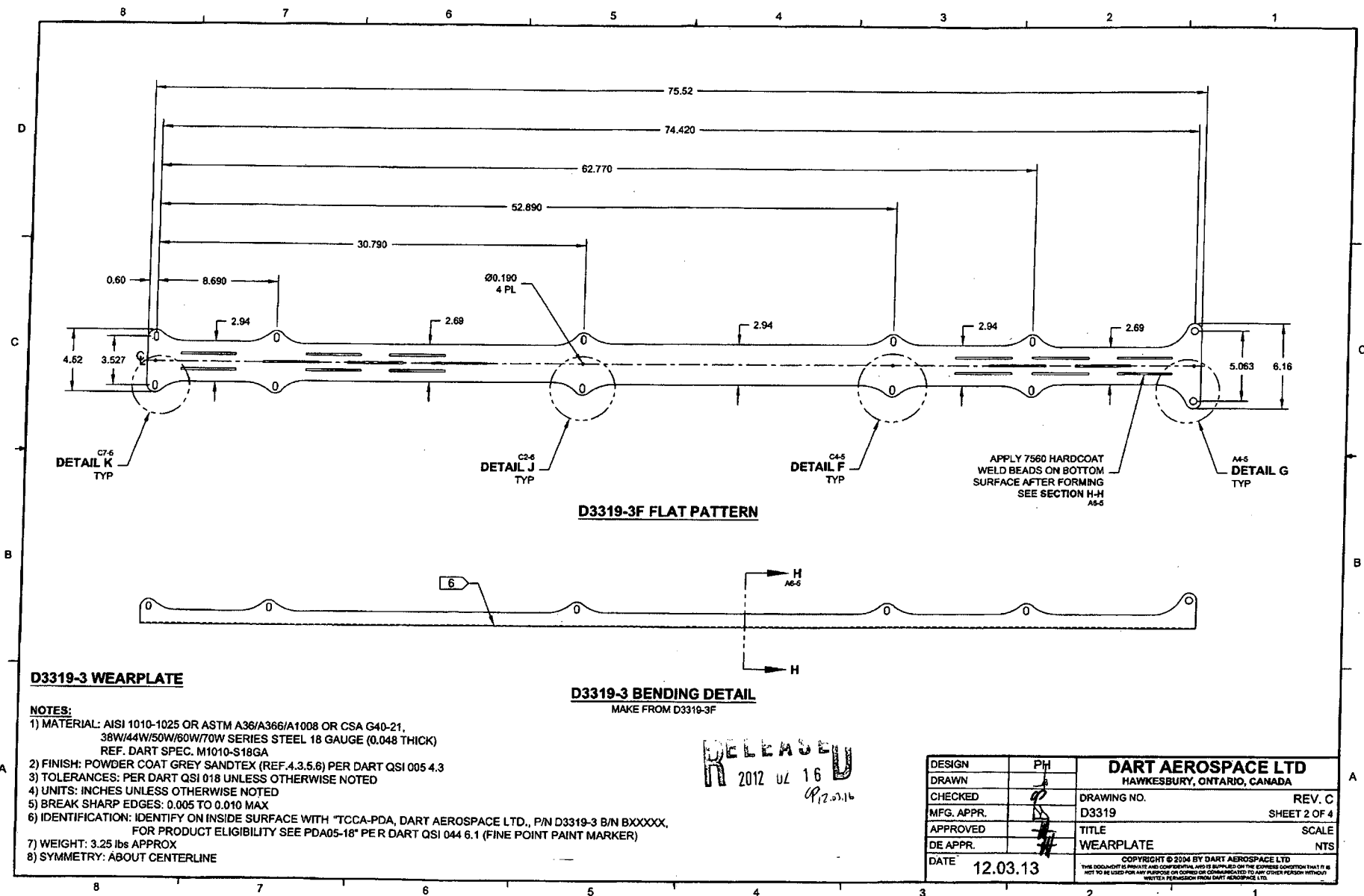
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2012-03-16
PER ECN 12-546 P12-03.16

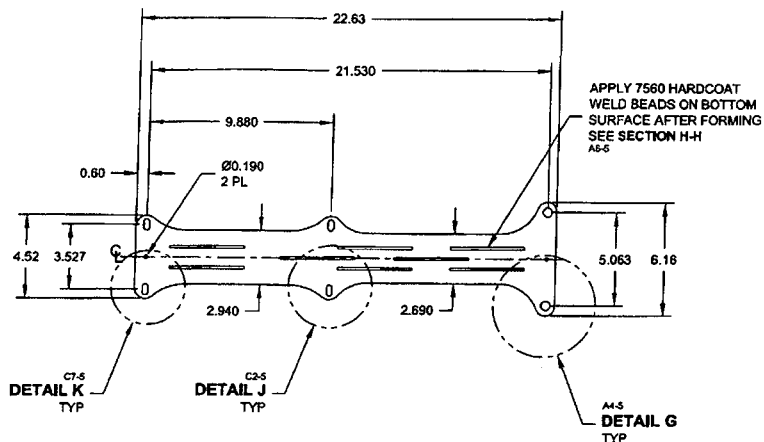
C	UPDATE TO CURRENT STANDARDS IAW QSI 043; CLOSED AFT MOST HOLE ON -3/-5/-7 (REF DETAIL G). SEE NCR12-547.	MB	12.03.13
B	WIDEN HOLES, REDUCE WIDTH ON -3/-5/-7	PH	05.06.06
A	NEW ISSUE	PH	04.09.24
REV.	DESCRIPTION	BY	DATE
DESIGN	PH		
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	12.03.13		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

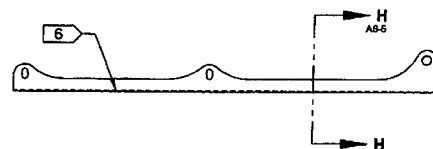
DRAWING NO. REV. C
D3319 SHEET 1 OF 4
TITLE SCALE
WEARPLATE NTS

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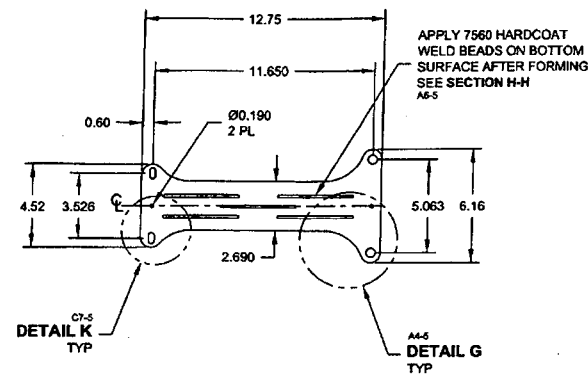




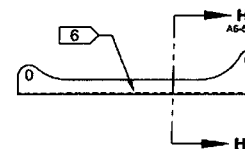
D3319-5F FLAT PATTERN



D3319-5 BENDING DETAIL
MAKE FROM D3319-5F



D3319-7F FLAT PATTERN



D3319-7 BENDING DETAIL
MAKE FROM D3319-7F

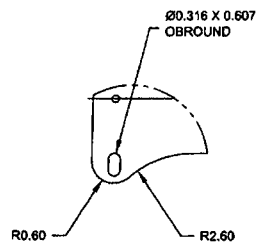
D3319-5/-7 WEARPLATE

NOTES:

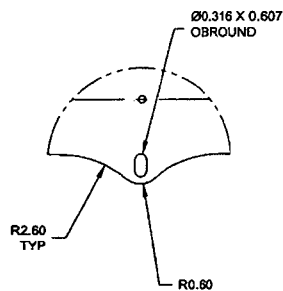
- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 18 GAUGE (0.048 THICK) REF. DART SPEC. M1010-S18GA
- 2) FINISH: POWDER COAT GREY SANDEX (REF. 4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY ON INSIDE SURFACE WITH "TCCA-PDA, DART AEROSPACE LTD., P/N D3319-X B/N BXXXXX, FOR PRODUCT ELIGIBILITY SEE PDA05-18" PER DART QSI 046 6.1 (PERMANENT MARKER)
- 7) WEIGHT: D3319-5 = 1.05 lbs APPROX; D3319-7 = 0.60 lbs APPROX
- 8) SYMMETRY: ABOUT CENTERLINE

RELEASED
2012-02-16
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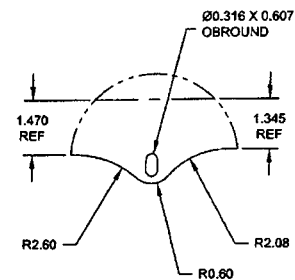
DESIGN	PH	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D3319	SHEET 3 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	WEARPLATE	NTS
DATE	12.03.13	COPYRIGHT © 2004 BY DART AEROSPACE LTD	
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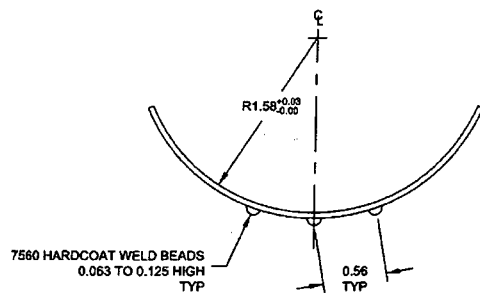
DETAIL K
SCALE 2X
B8-2
C4-3
C8-3



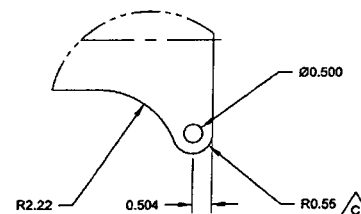
DETAIL F
SCALE 2X
B8-2



DETAIL J
SCALE 2X
B8-2
C7-3



SECTION H-H
SCALE 4X
B4-2
C3-3
C8-3



DETAIL G
SCALE 2X
B8-2
C2-3
C8-3

RELEASED
2012-02-16
19, 2, 03, 16

DESIGN	PH	DART AEROSPACE LTD
DRAWN		HAWKESBURY, ONTARIO, CANADA
CHECKED		DRAWING NO. REV. C
MFG. APPR.		D3319 SHEET 4 OF 4
APPROVED		TITLE SCALE
DE APPR.		WEARPLATE NTS
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